THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KIYOHIKO TAKEMOTO,
MIHARU YOSHIDA, SHUICHI YAMAGUCHI,
TAKESHI KOBAYASHI, MASANORI KAMIJO,
and AKIO YAMAMORI

Appeal No. 96-1228
Application 08/127,480[1]

HEARD: March 9, 1999

Before BARRETT, KRASS, and FRAHM, Administrative Patent Judges.

---

[1] Application for patent filed September 28, 1993, entitled "Nozzle Plate For Ink Jet Recording Apparatus And Method Of Preparing Said Nozzle Plate," which is a continuation of Application 07/858,633, filed March 27, 1992, now abandoned, which claims the foreign filing priority benefit under 35 U.S.C. § 119 of Japanese Application 3-089522, filed March 28, 1991, and Japanese Application 4-093720, filed March 19, 1992.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 1-3. Claims 4-6 have been withdrawn pursuant to a restriction requirement. Claims 7 and 8 have been canceled.

We affirm.

BACKGROUND

The invention is directed to a nozzle plate for an ink jet recording device having a nozzle hole in which an ink-repellant coating is provided on the front surface of the nozzle plate, the inner surface of the nozzle hole, and "a portion around said nozzle hole contiguous to said rear surface of said nozzle plate."

Claim 1 is reproduced below.

> 1. A nozzle plate for an ink jet recording apparatus, comprising:
>
> a nozzle plate having front and rear surfaces said nozzle plate having:
>
> a nozzle hole defined by an inner surface which is contiguous from said front surface of said nozzle plate through which ink passes as it is ejected from said rear surface toward the front surface; and

> means for enabling a meniscus of ink to be formed in a more stable manner inside said nozzle hole so as to at least partially define the shape of the meniscus, said enabling means including an[] [sic] ink-repellent coating film provided uniformly on said front surface of said nozzle plate, said inner surface of said nozzle hole, and a portion around said nozzle hole contiguous to said rear surface of said nozzle plate.

The examiner relies on the following prior art:

Hara et al. (Hara) 4,296,421 October 20, 1981

Claims 1-3 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hara.

We refer to the Final Rejection (Paper No. 17) (pages referred to as "FR__") and the Examiner's Answer (Paper No. 26) (pages referred to as "EA__") for a statement of the examiner's position and to the Brief (Paper No. 25) (pages referred to as "Br__") and the Reply Brief (Paper No. 29) (pages referred to as "RBr__") for a statement of appellants' position.

OPINION

Claims 1 and 2 are argued to stand or fall together. Claim 3 is argued separately.

Claims 1 and 2

Appellants argue that "it is clear that there could not possibly be any suggestion [in Hara] of coating a rear surface, as required by claim 1" (Br5), that the "rear surface [of Hara] does not include an ink-repellant coating" (Br5), and "it is clear that there is absolutely no teaching or suggestion in Hara that would provide the motivation for a person of ordinary skill in the art to apply an ink-repellant coating to the back surface of the nozzle plate 84 in the Figure 19 embodiment" (Br5). Therefore, appellants argue that the subject matter of claim 1 distinguishes over Hara because the ink-repellant coating is on the rear surface. The language of claim 1 does not support this argument.

Claim 1 recites that the ink-repellant coating is on "a portion around said nozzle hole contiguous to said rear surface of said nozzle plate." The language could be clearer, but it does not require the ink-repellant coating to be on the rear surface; the coating only has to be "contiguous to said rear surface" (emphasis added). "Contiguous" is defined as "1 a(1): touching along boundaries often for considerable distances ... b: next or

adjoining with nothing similar intervening ... c: NEARBY, CLOSE: not distant ... d: CONTINUOUS, UNBROKEN, UNINTERRUPTED: touching or connected throughout ...," Webster's Third New International Dictionary (Unabridged) (G.&C. Merriam Co., 1961). The coating 88' in figure 19 extends into the nozzle hole and is "around said nozzle hole" because it extends around the circumference of the hole and is "contiguous to said rear surface" in the sense that it extends near or close to the rear surface. We do not find the word "contiguous" used in the specification and, therefore, attribute no term of art meaning to it. Figure 14 of Hara teaches that the coating can have a uniform thickness. Claim 1 elsewhere recites "a nozzle hole defined by an inner surface which is contiguous from said front surface of said nozzle plate through which ink passes as it is ejected from said rear surface toward the front surface"; however, "contiguous" as used here does not provide a special meaning for "contiguous to said rear surface." Because the coating 88' in Hara is considered on "a portion around said nozzle hole contiguous to said rear

surface of said nozzle plate," we sustain the rejection of claims 1 and 2 over Hara.

In the interest of expediting further prosecution, we note that if claim 1 had recited providing an ink-repellant film on the rear surface of the nozzle plate, we would not accept the examiner's rationale for modifying Hara. The examiner states that three different surfaces are coated in figure 14 of Hara and concludes that it would have been obvious to a person of ordinary skill in the art to provide a coating to three surfaces of the orifice in figure 19 (FR4). The examiner further states that "[s]uch a film would be provided on three surfaces of the plate [in figure 19 of Hara] because a three surface coating would be needed to provide a land area" (EA4). Hara discloses coating the inside of a nozzle hole or conduit near the orifice with an ink-repellant material and does not suggest coating the rear surface of a nozzle plate. The coating on the outer surface of the tube in figure 14 of Hara takes no part in producing a meniscus or in repelling ink and is apparently there only as a consequence of the coating process. We find no suggestion to take a coating from an

outside surface where it does not touch the ink and move it to an inside surface where it will interact with the ink. Therefore, if properly claimed, an ink-repellant coating on the rear surface of the nozzle plate would be allowable over Hara. This is a statement under 37 CFR § 1.196(c).

Claim 3

Appellants argue that "claim 3 is further distinguishable since Hara does not teach or suggest that the ink-repellant coating film is a eutectoid plating, as required by claim 3" (Br8). In the Final Rejection, the examiner stated that "[s]uch plating is not considered of patentable significance because it is the film that is being claimed, and because such plating would have been within the skill of a worker in the art as a coating expedient" (FR3). The examiner also stated (FR4):

> Since eutectoid electroplating or eutectoid plating is argued to be of patentable significance, evidence should be submitted to show that these techniques are not considered expedients within the skill of a worker in the coating art, and that an ink-repellant coating film formed by these techniques is different from an ink-repellant film formed by other coating processes.

In the Examiner's Answer, the examiner states (EA5):

> Claim 3 stands rejected on the basis that eutectoid plating would have been within the skill of a worker in the art as a coating expedient (Office Action dated 11/01/94, Paper No. 15, paragraph 2; Final Rejection, Paper No. 17, paragraph 2). There is no evidence of record challenging this assertion. Thus, there is no patentable novelty to eutectoid plating as a method for forming a fluorine-containing coating. 37 CFR 1.111 and 1.106(c), MPEP 706.02(a).

Appellants do not respond in the Reply Brief, evidently because this was not considered to raise a new argument.

The examiner made a finding that a "eutectoid plating" was an expedient known to those of ordinary skill in the art; i.e., the examiner took "Official Notice." It is proper for an examiner to make a finding of "well known" prior art if the knowledge is of such notorious character that Official Notice can be taken. Manual of Patent Examining Procedure § 706.02(a) (5th ed., Rev. 14, Nov. 1992), now in § 2144.03 (6th ed., Rev. 3, July 1997). It takes very little on the part of an applicant to traverse such a finding. Applicant need merely deny the assertion or state that the applicant is without knowledge that the fact is well known. We do not agree with the examiner's requirement that appellants provide evidence that eutectoid plating is not an expedient within the skill of the worker

in the plating art (FR3); it would be the examiner's burden to provide evidence if appellants had traversed the examiner's finding. We are also not convinced that "eutectoid plating" is the kind of notoriously well-known fact that is susceptible to taking of Official Notice. However, the examiner made a finding that "eutectoid plating" was a known alternative to those of ordinary skill in the art and since we have no arguments to the contrary, we feel constrained to sustain the rejection of claim 3.

CONCLUSION

The rejection of claims 1-3 is sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

ERROL A. KRASS)
Administrative Patent Judge)
)
)

	)	
	)	BOARD OF PATENT
LEE E. BARRETT	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
ERIC S. FRAHM	)	
Administrative Patent Judge	)	

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202